



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,195	05/06/2005	John T. Knepler	27726-99477	9974
23644	7590	04/17/2006	EXAMINER	
BARNES & THORNBURG, LLP P.O. BOX 2786 CHICAGO, IL 60690-2786			PATEL, VINOD D	
		ART UNIT	PAPER NUMBER	
			3742	

DATE MAILED: 04/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/534,195	KNEPLER, JOHN T.	
	Examiner	Art Unit	
	Vinod D. Patel	3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 06 February 2006.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-8 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____.
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

DETAILED OFFICE ACTION

Response to Amendment

1. Response to non final action is acknowledged.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 7 is rejected under 35 U.S.C. 102(b) as being anticipated by Faries et al. (US2003/0000939).

Faries et al. discloses a method of modifying the temperature of a liquid, the method comprising: operating a mechanical switch (142) to apply power to a temperature modifier (158) to change the temperature of a liquid from an initial temperature toward a target temperature, and operating a solid-state switch (306) to apply power to the temperature modifier to maintain the liquid substantially at the target temperature.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1- 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over D'Antonio et al. (US6634279) in view of De Vilbiss et al. (US5690849) or Herrick et al. (US6130990).

D'Antonio et al. discloses the claimed invention including a method and apparatus comprising an electronic thermostat (Figure 2a-2c) for an apparatus having a container in which liquid is contained and a heater that is operable by electrical power to heat the liquid, the electronic thermostat comprising: a mechanical switch (54) through which electrical power is applied to the heater to increase a temperature of the liquid from an initial temperature toward a target temperature, and a solid-state switch (SCR/Diode 3 phase rectifying bridge 96) through which electrical power is applied to the heater to maintain the temperature of the liquid at substantially the target temperature and a controller (52) implemented with a software controlled Field Programmable Gate Array (FPGA) or a microprocessor, or any other programmable device (Column 3, lines 45-500).

With respect to claim 3 and 4, D'Antonio et al. (US6634279) discloses the claimed invention including a beverage brewing apparatus, an electronic thermostat for a liquid heating apparatus having a container in which liquid is contained and a heater that is operable by electrical power to heat the liquid, the electronic thermostat comprising: a mechanical switch (54) through which electrical power is applied to the heater (57) to increase a temperature of the liquid from an initial temperature toward a target temperature, and a solid-state switch (SCR/Diode 3 phase rectifying bridge 96) through which electrical power is applied to the heater to maintain the temperature of the liquid at substantially the target temperature. The method steps of claim 4 are inherently performed by the structure of the D'Antonio et al.

D'Antonio et al. discloses a controller (52) implemented with a software controlled Field Programmable Gate Array (FPGA) or a microprocessor, or any other programmable device (Column 3, lines 45-500) but does not disclose exclusively a controller is programmed to

implement a partial or complete proportional-integral-derivative algorithm for controllably heating liquid to produce a beverage.

De Vilbiss et al. discloses a current control circuit for improved power application and control of thermoelectric devices (10) comprising a thermoelectric cooling device (18), programmable control means (34) comprising a microprocessor and appropriate software (such as PID (Proportional, Integral and Derivative controls) control loop), current sensor (22), switch means (24).

Herrick et al. discloses on-demand direct electrical resistance heating system and method thereof comprising a controller (253) which is a microprocessor based single loop process controller. It controls a variety of processes including those requiring dual 4-20 mA output with full PID (Proportional, Integral and Derivative controls). The controller is a microprocessor, an ASIC chip, a computer, electronic logic chips or any combination of them. A controller is used to regulate the operations of the beverage dispenser to produce the heated water at the desired temperature based on an operator entered selections, fixed and adjustable variables and feedback data.

It would have been obvious to one of ordinary skill in the art to provide a PID controller as taught by De Vilbiss et al. or Herrick et al. for the device of D'Antonio et al. to improve power application and to maintain the temperature of device at a set point.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Faries et al. (US2003/0000939) in view of De Vilbiss et al. (US5690849).

Faries et al. discloses all the claimed limitations except the temperature modifier is a cooling element.

De Vilbiss et al. discloses a current control circuit for improved power application and control of thermoelectric devices (10) comprising a thermoelectric cooling device (18), programmable control means (34) comprising a microprocessor and appropriate software (such as PID (Proportional, Integral and Derivative controls) control loop), current sensor (22), switch means (24).

It would have been obvious to one of ordinary skill in the art to use a thermoelectric cooling device as taught by De Vilbiss et al. for the device of Faries et al. to remove the heat as desired by the user.

7. Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The art should be both separately considered and considered in conjunction with the previously cited art when responding to this action. Tompkins et al. (US5559720) relates to spa control system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinod D. Patel whose telephone number is 571-272-4785. The examiner can normally be reached on 7.30 A.M. TO 4.00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 571-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vinod Patel 4/16/06
Vinod Patel
Patent Examiner

Robin D. Evans
ROBIN EVANS
SUPERVISORY PATENT EXAMINER
4/12/06